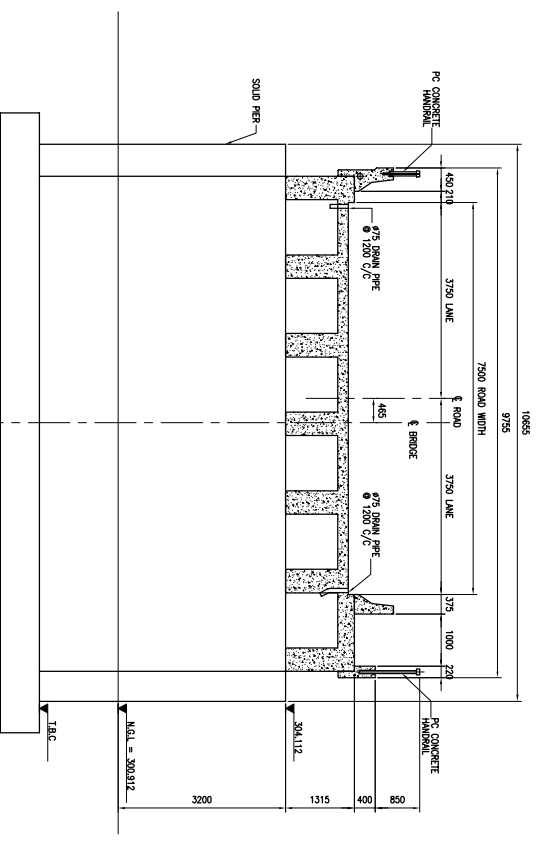
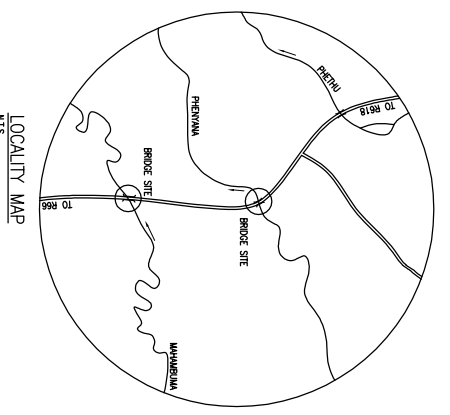


T	Q	K	H <sub>10</sub>	FLOORING ELEVATION (m)	MAX. MATERIAL VEL. (m/s)	EXIT CONDITIONS
20	141.41	0.143	1.8	301.89	2.819	COARSE SAND
50	207.08	0.209	2.25	302.14	3.068	COARSE SAND
100	262.25	0.264	2.6	302.69	3.35	COARSE SAND

CATCHMENT SLOPE : 1.38 %  
 W.A.D. = 740 mm  
 LENGTH : 7.248 km  
 CATCHMENT AREA : 14.835 km<sup>2</sup>  
 DESIGN FLOOD RETURN PERIOD = 1:100 YR  
 R.M.F. =  $(Q/A)/T^2 \times 10^6 = 92 \text{ m}^3/\text{s}^2$   
 K = 5.6



**DESIGN LOADINGS**

ALL LOADS IN ACCORDANCE WITH NEW ROMANIC STRUCTURES DESIGN MANUAL AND TYP WHERE APPLICABLE

ROUTE CLASSIFICATION : MAIN SECONDARY MAIN ROAD

TRAFFIC LOADING : IN LOADING, NB LOADING, LM LOADING

PIERS DESIGNED IN ACCORDANCE WITH STANDARD DETAIL PER. NO. S20 6:10 : PIERSET AND HORIZONTAL LOADING APPLICATION

25mm CHAMFERED TO ALL EXPOSED SHARP CORNERS

FOUNDATION BEARING CAPACITY TO BE CHECKED ON SITE/CHK.

**CONCRETE CLASS AND COVER**

ELEMENT	CLASS/TYPE	SIZE	COVER TO REINFORCEMENT
FOUNDATIONS	40/75		75
PIERS	40/75		50
DECK	40/75		50
ABUTMENTS	40/75		50
WAS CONCRETE	40/75		50

**CONCRETE FINISHES**

VISIBLE SURFACES : F2 (SMOOTH)

PIERS : F3

ESTIMERE : F1

**HYDROLOGY AND HYDRAULICS**

SEE DATA BLOCK & APPH

**BOREHOLE DATA**

TO BE COMPLETED ON GEOLOGICAL INVESTIGATION

Symbol	Date	Description	Checked	Signed
		AMENDMENTS		

Issued for Information: MM MM

**PRELIMINARY**

Supervising Engineer: \_\_\_\_\_ Date: \_\_\_\_\_

Supervising Authority: \_\_\_\_\_

Designed by -	Checked by -	Drawn by -	Checked by -	File reference -
M. MTHEHWA	M. MTONGA	W. SBIYA	M. MTHEHWA	

April 2013  
April 2013  
April 2013  
April 2013

Survey Plan No.:-

Province of KwaZulu - Natal  
Department of Transport

**INGENROP**

Head of Transport

ROAD P736 NONGOMA-OSUTHU  
BRIDGE COORDS : 27°59'22.06"S & 31°30'39.98"E

**PHENYANE RIVER BRIDGE**  
GENERAL ARRANGEMENT

Sheet km distance  
Scale AS SHOWN  
Plan No.:- 0001/01